

In re Patent Application of:
ESPOSITO CORCIONE ET AL.
Serial No. 10/728,361
Filing Date: December 4, 2003

REMARKS

The Examiner is thanked for the thorough examination of the present application. For the reasons set forth in greater detail below, it is believed that all of the claims are patentable over the prior art.

I. The Claimed Invention

The invention is directed to a hybrid vehicle. As recited in independent Claim 1, for example, the hybrid vehicle includes an internal combustion engine; an electric motor; a drive wheel associated with the electric motor and having a hub; an axle extending into the hub of the drive wheel; at least one rechargeable battery; and a power circuit for driving the electric motor by drawing power from the at least one rechargeable battery and for recharging the at least one rechargeable battery. The hybrid vehicle also includes an electronic torque management unit for controlling the internal combustion engine and the electric motor; and with the electric motor being reversible and comprising a ferromagnetic pack mounted on the axle for forming a stator within the hub of the drive wheel, and a rotor mounted adjacent the stator within the hub of the drive wheel.

Independent Claim 13 is directed to a motorcycle including the recited elements from Claim 1. And independent Claim 19 is directed to a method for powering the hybrid vehicle as recited in independent Claim 1.

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II. The Claims Are Patentable

The Examiner rejected all of the independent claims over a combination of Yang, Matsuto et al. and Chao et al. The Examiner cites Yang as disclosing a hub mounted drive including an electric motor, a drive wheel, an axle extending into the hub of the drive wheel, a magnetic element that forms a stator, and a rotor mounted adjacent the stator. Yang also discloses a clutch. Moreover, Yang is "more suited for wheel-chairs, bicycles, low-speed vehicles, etc." (Col. 3, lines 13-14). Nevertheless, the Examiner quite correctly recognizes that Yang fails to disclose an internal combustion engine. As such, Yang also fails to disclose the electronic torque management unit for controlling the internal combustion engine and the electric motor.

Matsuto et al. discloses a hybrid motorcycle that includes an internal combustion engine, and wherein a clutch shaft, transmission shaft and electric motor shaft are disposed in series and also in parallel to and higher than the crank shaft. The Examiner also quite correctly recognizes that the combination of Yang and Matsuto et al. fails to disclose the electronic torque management unit for controlling the internal combustion engine and the electric motor.

Lastly, the Examiner cites Chao et al. as disclosing an electronic torque management unit for controlling an electric motor. However, Applicants respectfully note that Chao et al. discloses an electronic torque management unit for controlling an electric motor on a bicycle that may be powered also by the user's legs. In other words, Chao et al. also fails to disclose the electronic torque management unit for

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controlling the internal combustion engine and the electric motor.

Accordingly, even the selective combination of the three disjoint references cited by the Examiner fails to disclose the claimed invention. Thus, the claims are patentable for this deficiency.

As an additional and independent basis for the patentability of the claims, Applicants also respectfully submit that the Examiner has impermissibly used Applicants' own specification as a roadmap to assemble disjoint pieces of the three prior art references in an attempt to produce the claimed invention. The three references all disclose separate and mutually exclusive means for propulsion. There is no proper motivation in the prior art to selectively combine the references as suggested by the Examiner. Accordingly, Applicants also submit that the claims are patentable for this failure of the prior art.

In view of the patentability of the independent Claims 6, 13 and 19, it is submitted that their dependent claims, that recite yet further distinguishing features are also patentable. These dependent claims require no further discussion herein.

III. Conclusions

In view of the arguments provided herein, it is submitted that all of the claims are patentable. A Notice of Allowance is requested in due course. Should any minor informalities need to be addressed, the Examiner is encouraged

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to contact the undersigned at the telephone number listed below.

Respectfully submitted,



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CERTIFICATE OF FACSIMILE TRANSMISSION

I HEREBY CERTIFY that the foregoing correspondence has been forwarded via facsimile number 571-273-8300 to the Commissioner of Patents this 16th day of February, 2006.

